

**Sinclair and Dyes Inlets**  
**Water Cleanup Plan for Bacteria**  
**Community Advisory Committee Meeting**  
**4/27/04**













# **Bacteria**

## **Sources .....Conveyances**

- **Leaking septic systems**
- **Inadequate control of manure**
- **Pet waste**
- **Wastewater Treatment Plants - CSOs**
- **Wildlife**
- **Streams**
- **Storm drains/outfalls**
- **Illicit cross connections**
- **Streets, roofs, parking lots**

# Where are the problems in the Sinclair and Dyes Watersheds?

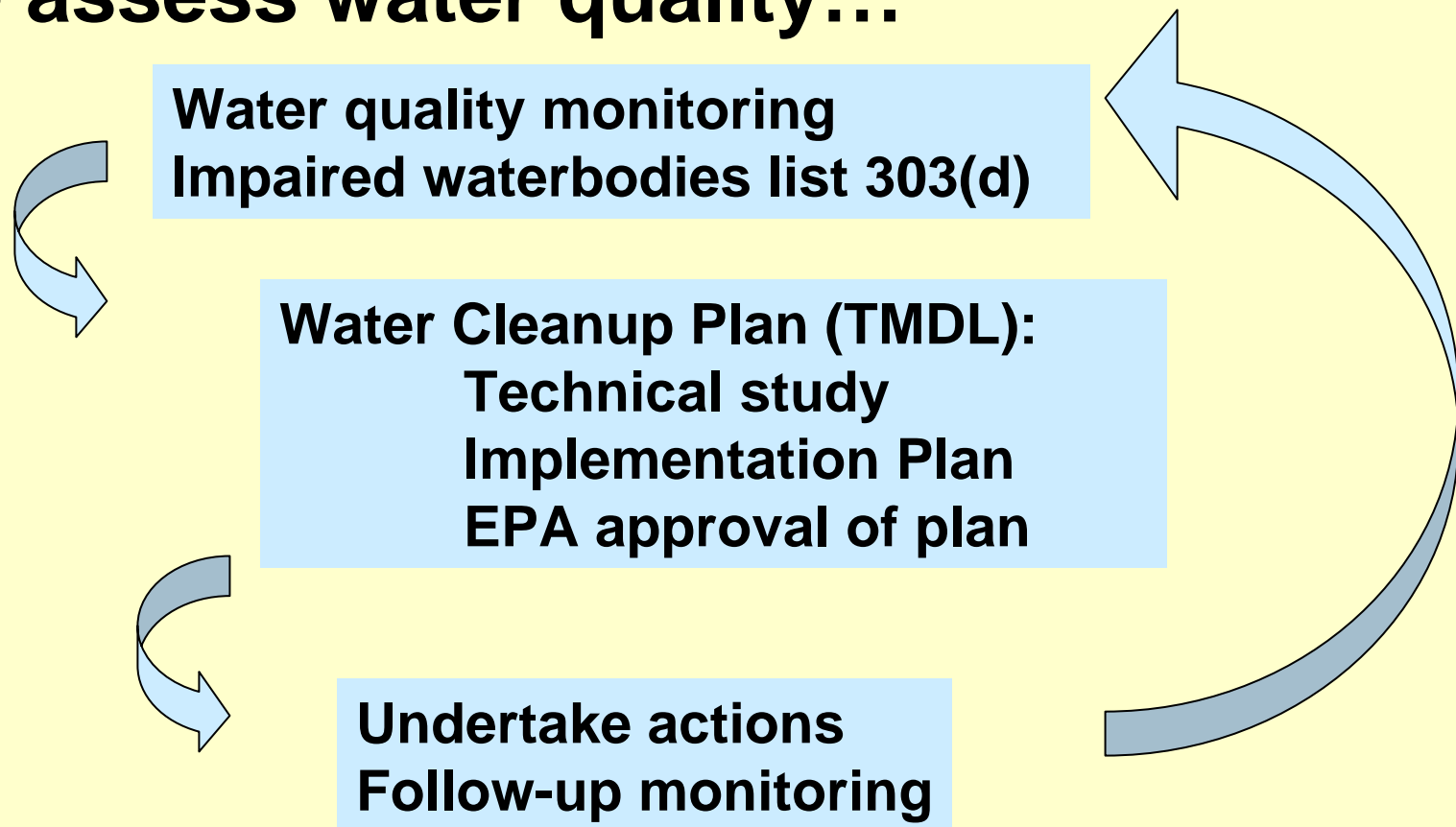
## *Streams polluted with bacteria*

- Dyes Inlet: Barker, Clear, Mosher, Ostrich, Pahrman, Strawberry
- Sinclair Inlet: Annapolis, Blackjack, Gorst, Karcher, Sacco

## *Marine waters closed to commercial shellfishing*

- Dyes Inlet – north and southeast sections
- Chico Bay (restricted)

# **Clean Water Act (1972) requires states to assess water quality...**





# Goals of Water Cleanup Plan

- Protect aquatic life
- Waters safe for recreational use
- Fish, shellfish safe for commercial and recreational harvest

*To ensure these, waters must meet state water quality standards and DOH shellfish harvest standards*

# Water Quality *Study* vs. Water Quality *Plan*

## *Study - Data & Analysis*

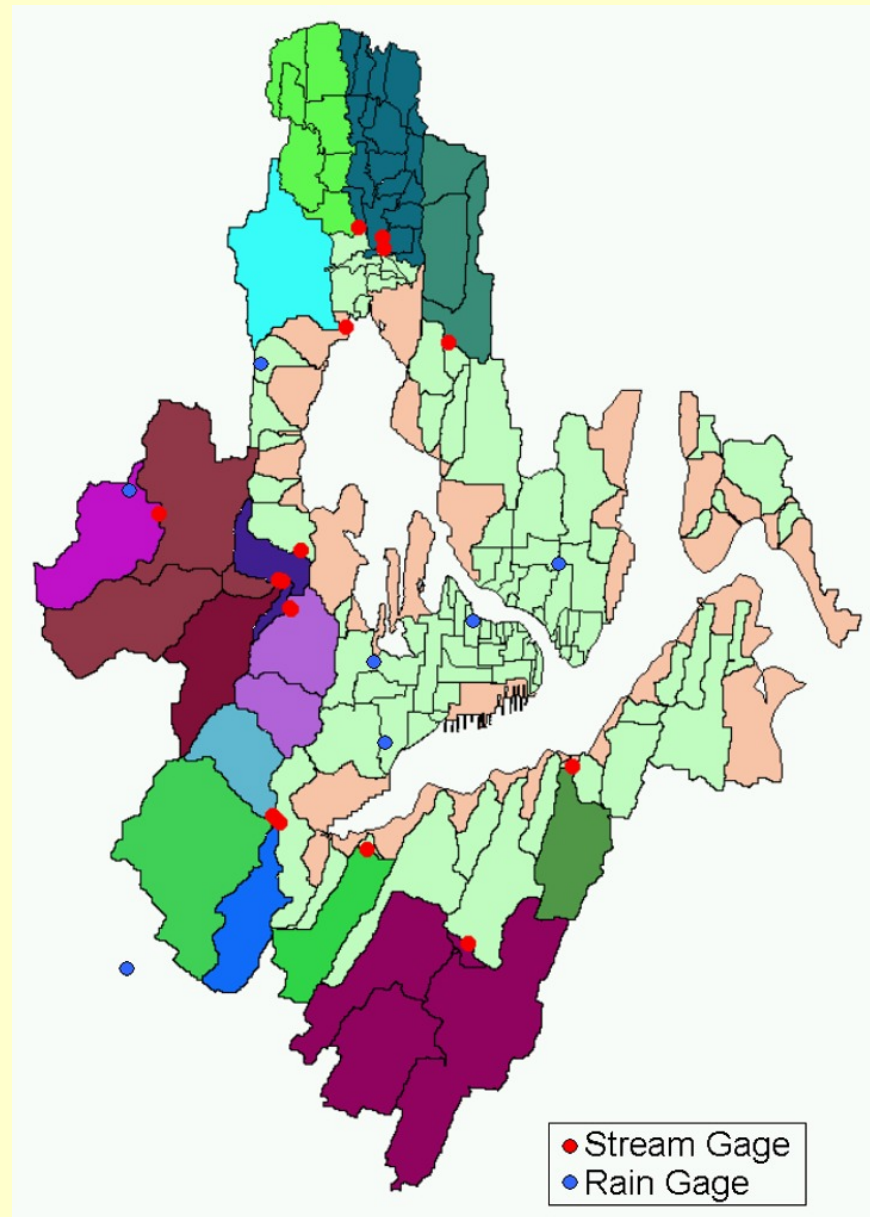
- How much bacteria can this water body accept & still meet stds?
- Prioritize sources for cleanup

## *The Plan*

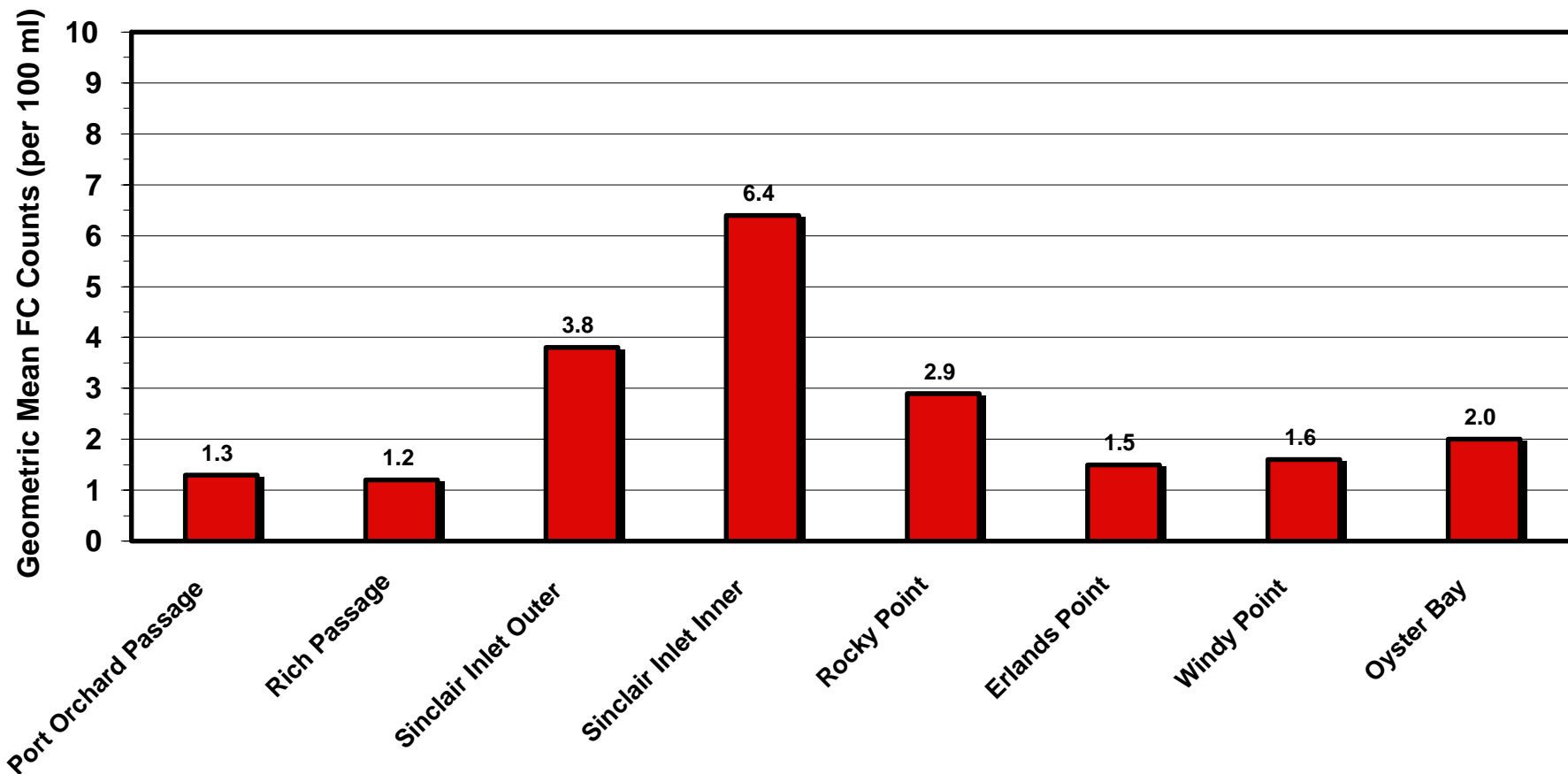
- What actions will reduce the pollution?
- What can local organizations do?



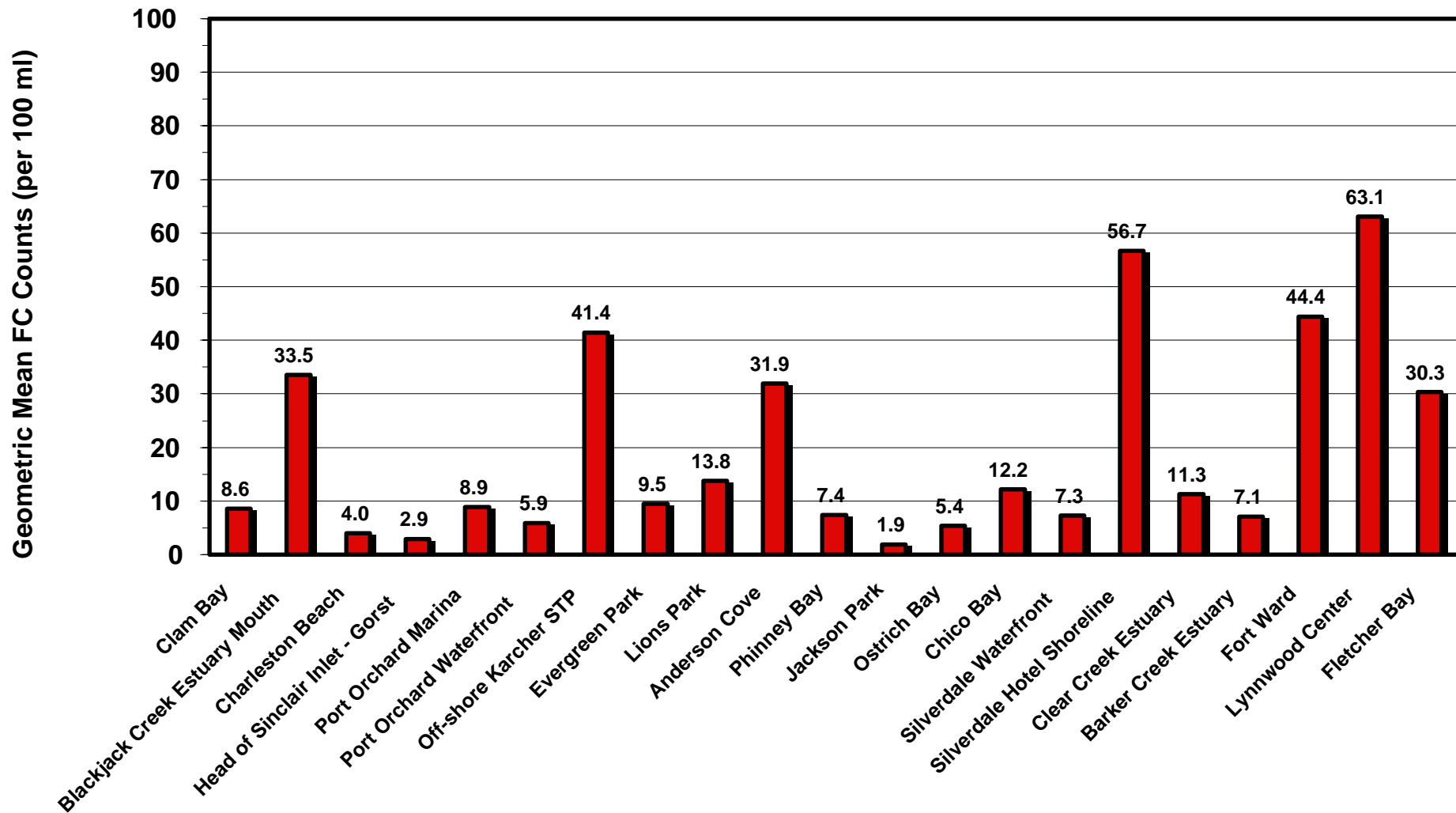
**Many  
“subwater-  
sheds”  
drain to  
Sinclair  
and Dyes  
Inlets.**



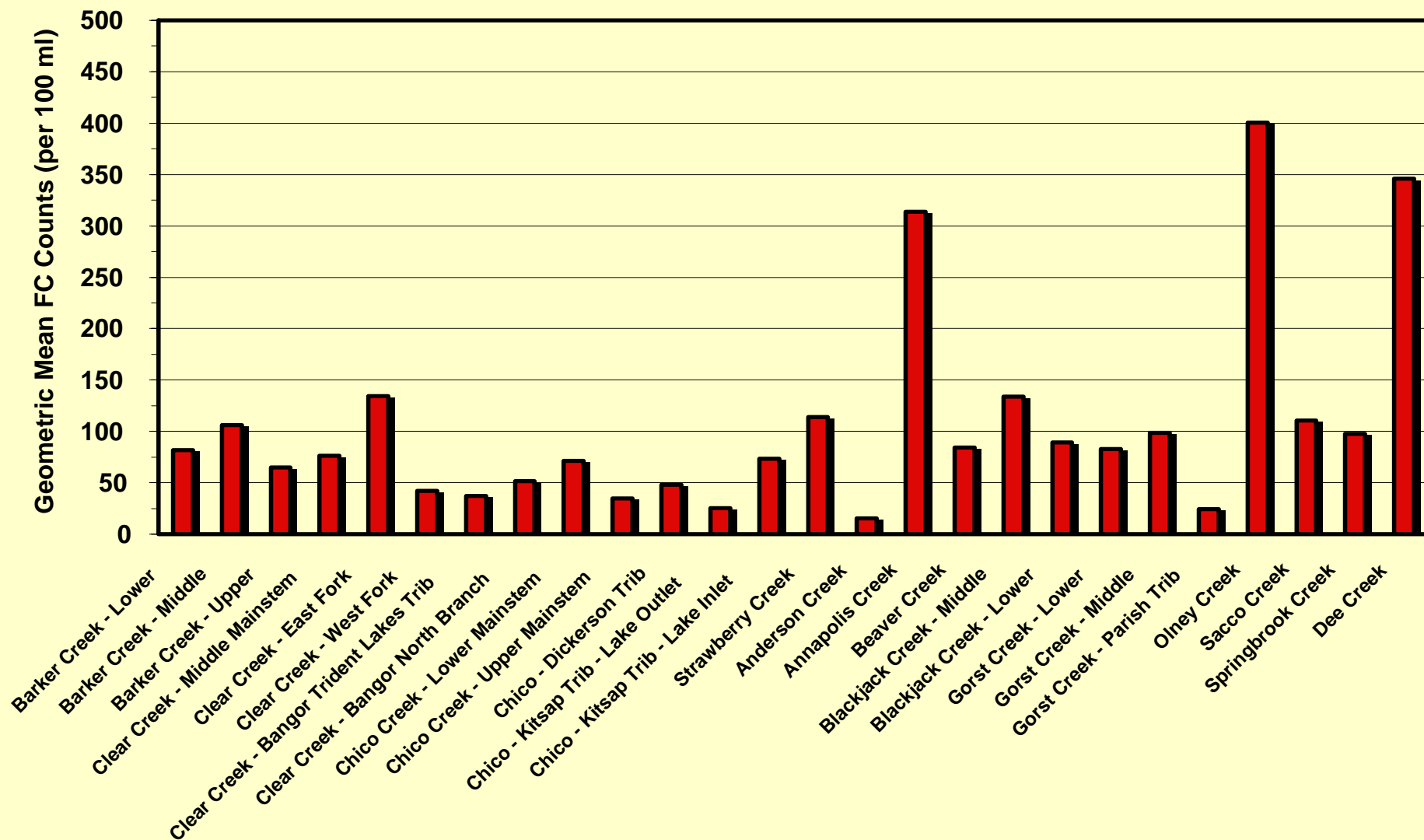
# Preliminary Fecal Coliform Sampling Results for Marine Stations



# Preliminary Fecal Coliform Sampling Results for Nearshore Stations



# Preliminary Fecal Coliform Sampling Results for Stream Stations



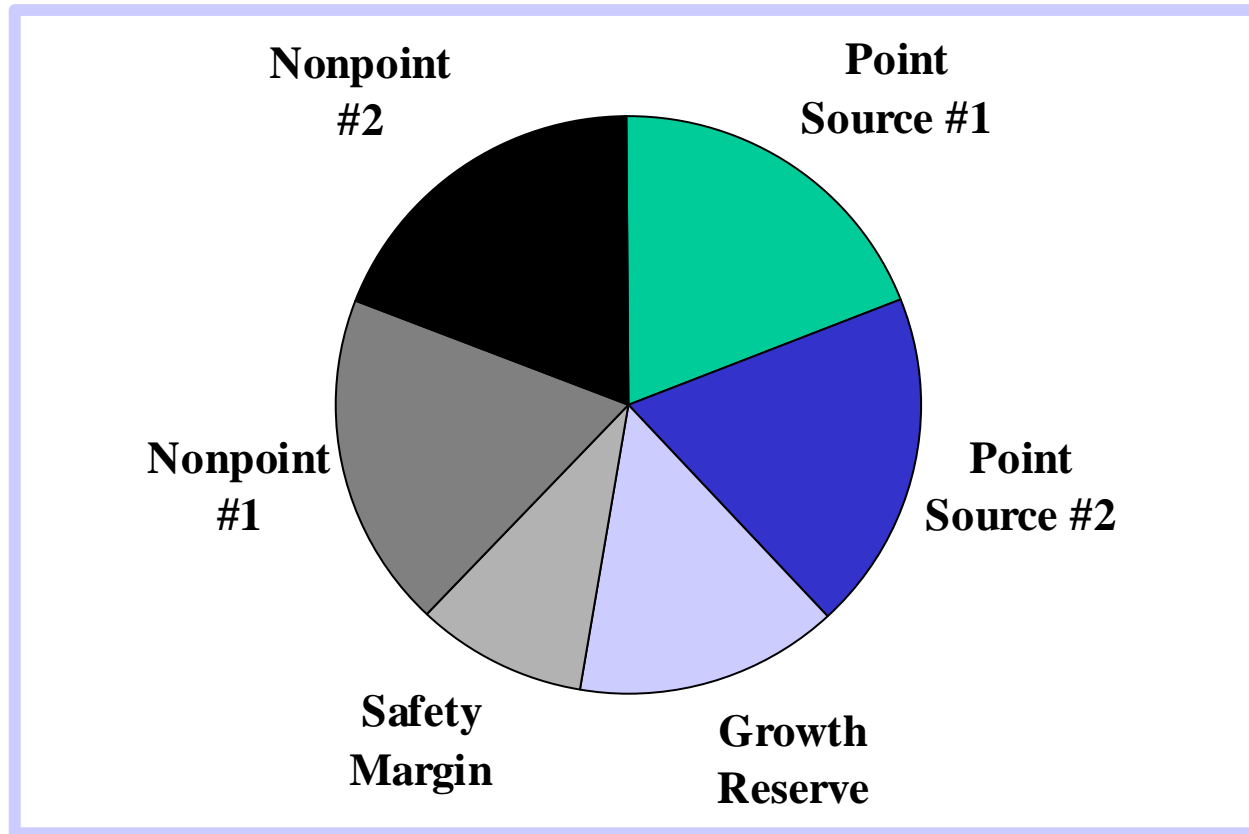


# **Watershed model linked to dynamic marine model**

- **Data inputs – measured stream, stormwater and nearshore counts of bacteria**
- **Watershed model uses precipitation, storm size to generate streamflow and outfall discharge**
- **Watershed model results are fed into the dynamic marine model to predict the “where” and “when” and “how much” of a storm**

# TMDL ALLOCATIONS –

The TMDL pie contains the maximum amount of pollutant divided into allocations for each source.



# **Local organizations will help develop a plan for implementation**

## ***What works?***

- ***Further identifying & correcting sources – Kitsap Health's PIC program***
- ***Kitsap Conservation District – working with animal owners***
- ***Public education – pet waste***
- ***City, County stormwater programs***
- ***City, County planning agencies***
  - ***Incentives for Low Impact Development***
  - ***Enforce critical areas protection***

# What you can do

- **Participate in the Community Advisory Committee**
- **As a watershed resident:**
  - **No more washing cars in the driveway**
  - **Pick up after your pets/manage manure**
  - **Be an enlightened boat owner**
  - **Have your septic tank inspected!!!**
  - **Ask city/county planning depts to encourage Low Impact Development**

# Sampling Team in Gorst Creek

